

## CLAIMS

1. A phase locked loop system comprising a charge pump (12) arranged to output a first current over a first charge pump path while a second current is output over a second charge pump path; and a phase locked loop filter (13) having a first capacitor (C2) electrically coupled to the first charge pump path; and a parallel resistor/capacitor circuit (23) electrically coupled to the second charge pump path with the resistor/capacitor circuit (23) having a second capacitor (C1); wherein the first capacitor (C2) and second capacitor (C1) are connected in series to allow a voltage associated with the first capacitor (C2) and a voltage associated with the parallel resistor/capacitor circuit (23) to be added together.
2. A phase locked loop system according to claim 1, wherein the current flow in the second path is greater than the current flow in the first path to allow a decrease in the capacitance of the phase locked loop filter (13).
3. A phase locked loop system according to claim 1 or 2, further comprising a third capacitor (C3) and a resistor (R2) to allow the generation of a pole.
4. A phase locked loop system according to any preceding claim, wherein the added voltage is arranged to control a voltage controlled oscillator (13).
5. An electronic device incorporating a phase locked loop system according to any preceding claim.
6. A radiotelephone incorporating a phase locked loop system according to any preceding claim.